IN THE SPECIFICATION

Replace the paragraph in page 3, lines 20-28, with:

Figure 1 illustrates a block diagram of a configuration of devices in which one embodiment of the invention may be employed. A first device (transmitter) 102 transmits serial data signals to a second device (receiver) 104 over a transmission medium 106. The transmission medium may be susceptible to noise or interference which may cause jitter and/or frequency offsets in the transmitted signal. The second device includes a data recovery or error correction component 108 embodying one or more aspects of the invention to improve data extraction.

A1

Replace the paragraphs starting in page 4, line 34, and ending in page 5, line 15, with:

The edge detector 204 attempts to find the location of the edges (i.e. low-to-high or high-to-low transitions) between data bits. In one implementation, the edge detector 204 extracts edge locations from the samples by XORing (performing exclusive OR logic operations) on adjacent data samples. For the exemplary embodiment shown in Fig. 2, six

A2

samples serve as inputs to the edge detector 204 and the edge detector 204 generates six outputs, each output being obtained by XORing adjacent samples. For instance, in Fig. 3 for bit3, XORing of sample pairs d4 (between bit2 and bit3) and d5, d5 and d6, d6 and d1, d1 and d2, d2 and d3, and d3 and d4 (between bit3 and bit4) would provide the six outputs for the edge detector 204.

Throughout this description, the symbol ⊕ is employed to refer to a XORing (exclusive OR) operation or any collection of operations which provide an equivalent result.

a2

For each cycle, the edge detector 204 generates the location where the edges occurred between samples. For example, if data sample d3 was logic low (0), and data sample d4 was logic high (1), the edge detector would indicate an edge occurred between d3 and d4.

A decision matrix component 206 is coupled to the edge detector 204 to receive the outputs from the edge detector 204 and select one of the sample points according to a predefined decision algorithm, table, or matrix.

IN THE CLAIMS

Please substitute the following amended claims as follows: